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     (FILE 'HOME' ENTERED AT 18:15:52 ON 29 JUN 2004)

     FILE 'MEDLINE, SCISEARCH, CAPLUS' ENTERED AT 18:16:10 ON 29 JUN 2004
L1         31071 S ALGINATE
L2          1856 S L1 (L) (POROUS OR PORE? OR GAS OR FOAM? OR LEACH?)
L3          1211 S L2 AND PY<=1998
L4          1026 DUP REM L3 (185 DUPLICATES REMOVED)
L5          1026 FOCUS L4 1-
L6            11 S L4 AND (DNA OR NUCELIC OR GENE OR PLASMID)
L7            11 SORT L6 PY
                 E SHEA LONNIE?/AU
L8            23 S E2
                 E BONADIO JEFFREY?/AU
L9            62 S E1
L10           85 S L8 OR L9
L11           77 DUP REM L10 (8 DUPLICATES REMOVED)
L12            2 S L11 AND L2
L13            2 S L8 AND L2
L14            0 S L9 AND L2

=> d an ti so au ab pi l13 1-2

L13  ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   2001:380374  CAPLUS
DN   134:371799
TI   Sustained drug delivery from polymer matrixes
SO   PCT Int. Appl., 88 pp.
     CODEN: PIXXD2
IN   Mooney, David J.; Shea, Lonnie D.; Peters, Martin C.; Liao,
     Elly; Richardson, Thomas P.
AB   Disclosed are pre-fabrication methods for preparing particular 3-dimensional
     structural matrixes containing proteins and/or drugs, the resultant compns.
     and in vitro and in vivo methods for the prolonged release of proteins
     and/or drugs in various biol. environments.  The pre-fabrication processes
     provide protein- and/or drug-matrix materials with both high incorporation
     efficiencies and control over sustained protein and/or drug release.  The
     resultant matrixes are thus particularly useful in vivo biodelivery
     embodiments, providing control over spatial delivery and differential
     release kinetics of multiple biol. components.  Thus, 125I-labeled
     vascular endothelial growth factor (VEGF) was first added to a solution of 1%
     sodium alginate, and then beads of this solution were gelled by
     injecting droplets into a aqueous solution containing calcium chloride.  The
     alginate beads were collected, rinsed, and lyophilized.  The
     lyophilized beads were mixed with 85:15 PLGA and NaCl particles and the
     mixture compression molded and processed with a gas
     foaming/particulate leaching process.  Following salt
     leaching and drying, the matrixes were placed in the serum-free
     tissue culture medium and maintained at 37°.  The released growth
     factor was normalized to the total incorporated growth factor.
     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
     ----------------  ----  --------      ---------------  --------
PI   WO 2001035932      A2   20010525      WO 2000-US31754  20001117
     WO 2001035932      A3   20020307
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

L13  ANSWER 2 OF 2  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   1999:736893  CAPLUS
DN   131:332976
TI   Sustained dna delivery from structural porous matrices for gene therapy
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applications with special emphasis is on bone formation and regeneration

SO PCT Int. Appl., 144 pp.
CODEN: PIXXD2

IN **Shea, Lonnie D.**; Bonadido, Jeffrey; Mooney, David J.

AB Disclosed are particular 3-dimensional structural matrixes containing DNA and their use in the prolonged release of DNA in various biol. environments. The structural matrix is a **porous** polymer [PLGA]-based containing **pores** formed by **gas foaming** involving inert **gases** (CO2) and **leaching** out of a water-soluble particulate (salt, NACL, sugar, glucose, sucrose, mannitol) when exposed to body fluids. The admixt. is compression molded into a selected size and shape prior to executing the **gas foaming** process. The structural matrix may also be an **alginate** or modified **alginate** matrix. This structural matrix is a biocompatible or biodegradable matrix. It may also be a lactic acid polymer, glycolic acid polymer or lactic acid/glycolic acid copolymer matrix. At least part of this matrix may be comprised of lactic acid/glycolic acid (PLGA) copolymer matrix. The structural matrix may be modified where one side section is bonded to one cell interaction mol. such as cell adhesion mols., cell attachment peptides, proteoglycan attachment peptide sequences, proteoglycans, cell adhesion polysaccharides, growth factors, cell adhesion enzymes, RGD peptide, fibronectin, vitronectin, Laminin A, Laminin B1, Laminin B2, collagen 1 and thrombospondin. The DNA-matrix materials are created such that they maintain a defined space, allowing cellular migration, transfection and proliferation to occur in a controlled manner. Such DNA-containing structural matrixes are thus particularly useful in in vivo cell transfection and gene expression in the context of gene therapy. This may encode a protein for stimulating bone progenitors or wound healing in fibroblast or in tissue or organ regeneration or transplantation or an antigen for immunity or cytotoxic or apoptosis-inducing protein or a transcription factor or elongation factor or cell cycle control protein or kinase or phosphatase or DNA repair protein or oncogene or tumor suppressor or angiogenic protein or anti-angiogenic protein or immune response stimulating protein or cell surface receptor or accessory signaling mol. or transport protein or anti-bacterial or anti-viral protein or hormone or neurotransmitter or growth factor or growth factor receptor or interferon or interleukin or chemokine or cytokine or colony stimulating factor or chemotactic factor protein of growth hormone or parathyroid hormone or PTH1-34 polypeptide or bone morphogenic protein or BMP-2A or BMP-2B or BMP-3 or BMP-4 or BMP-5 or BMP-6 or BMP-7 or BMP-8 or TGF-α or TGF-β1 or TGF-β2 or latent TGFβ binding protein or activin/inhibin protein or FGF or GMCSF or EGF or PDGF or insulin-like growth factor or leukemia inhibitory factor. This method allows for the use in gene transfer to cells within a tissue site and in manufacture of a medicament for gene therapy. Implantable medical devices comprising this gene-matrix are described. The release of nucleic acids from the matrix is controlled by diffusion. This method also applies to cancer therapy or treating viral infection.

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9958656	A2	19991118	WO 1999-US10330	19990512
WO 9958656	A3	20000106		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BJ, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9938986	A1	19991129	AU 1999-38986	19990512

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L Number	Hits	Search Text	DB	Time stamp
1	6	(("5514378") or ("5639473") or ("5965125")).PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/29 17:05
2	53	alignate AND (nucleic or DNA)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/06/29 18:05
3	30	mooney-david-j.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/06/29 18:05
4	11	BONADIO and goldstein.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/06/29 18:05
5	51	(porous NEAR (polymer or microsphere or gel or hydrogel or matrix) AND gas AND (DNA or nucleic or sequence)) and 435/325.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/06/29 18:06
6	2	("6281256").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/06/29 18:06
7	2	BONADIO and SHEA.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/06/29 18:07